

MEASURE-THEORETIC STRONG MIXING FOR FINITE TOPOLOGICAL RANK SYSTEMS

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ABSTRACT. Finite topological rank subshifts have been shown to be a useful framework in symbolic dynamics, allowing the development of general tools and the discovery of strong rigidity properties for many systems of interest. Exploring further within this class, we examine the measure-theoretic strong mixing property and prove that some finite topological rank systems do satisfy it. This provides a negative answer to a question posed by Bezuglyi et al. and Maass et al., and shows that this class is more flexible with respect to ergodicity properties than previously expected. Our technique consists of constructing finite topological rank models for certain measure-theoretical rank-one systems that are known to be strongly mixing.